

Serial No. 10/664,081  
Docket No. T36-159070M/RS

5

**AMENDMENTS TO THE DRAWINGS:**

The attached sheet of drawings includes changes to Figure 1 to overcome the Examiner's objections by labeling the figure as "PRIOR ART". This sheet, which includes Figures 1 and 2, replaces the original sheet which includes Figures 1 and 2.

Attachments:      Replacement Sheets (1)  
                         Annotated Sheets Showing Changes (1)

Serial No. 10/664,081  
Docket No. T36-159070M/RS

6

### REMARKS

Claims 1-19 and 21-24 are all of the claims presently pending in the application. Claim 1 has been amended to more particularly define the invention. Claim 19 has been canceled without prejudice or disclaimer.

Entry of this Amendment is believed proper since no new issues are being presented to the Examiner which would require further consideration and/or search.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claim 15 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 1-5, 7, 12-14 and 16-24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative under 35 U.S.C. § 103(a) as obvious over, JP 11-112028 (hereinafter "JP '028"). Claims 1-9, 11-14 and 16-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '028 in view of Kneissl et al. (United States Patent No. 6,515,308; hereinafter "Kneissl").

These rejections are respectfully traversed in the following discussion.

#### **I. THE CLAIMED INVENTION**

The claimed invention of exemplary claim 1, provides a light-emitting device including a semiconductor light-emitting element using a substrate surface as a main light-extracting surface (e.g., see Application at page 14, lines 12-16 and Figure 3). Accordingly, the heat-radiating characteristic is improved so that the durability of the light-emitting device is improved (see Application at page 5, lines 6-17).

#### **II. 35 U.S.C. 112, FIRST PARAGRAPH, REJECTION**

The Examiner has rejected claim 15 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Examiner stated that there is no enabling disclosure for the "plurality of swollen portions".

Applicant submits that the specification provides support for "a plurality of swollen

Serial No. 10/664,081  
Docket No. T36-159070M/RS

7

portions” on page 14, line 17 of the Application. It is clearly unreasonable for the Examiner to assert that one of ordinary skill in the art would be able to make one swollen portion, but not more than one swollen portion.

### III. THE PRIOR ART REFERENCES

#### A. The JP ‘028 Reference

The Examiner alleges that JP ‘028 teaches the claimed invention of claims 1-5, 7, 12-14 and 16-24. Applicant submits, however, that there are features of the claimed invention, which are neither taught nor suggested by JP ‘028.

That is, JP ‘028 does not teach or suggest a light-emitting device including “*a semiconductor light-emitting element using a substrate surface as a main light-extracting surface*” (emphasis added) as recited in exemplary claim 1.

Indeed, the Examiner attempts to rely on Figure 5a of JP ‘028 to support his allegations. The Examiner, however, is clearly incorrect.

That is, the light-emitting element of JP ‘028 has a main light-emitting surface on the electrode surface side (see JP ‘028 at paragraphs [0029]-[0030]). Specifically, JP ‘028 recites, “the light which leaks and comes out of the crystal substrate 4a of a light emitting device 4 joins luminescence from the main light drawing side” (see JP ‘028 at second line of paragraph [0030]). At this point, the main light drawing side is the p lateral electrode 4b side (see JP ‘028 at paragraphs [0016] and [0021]).

As discussed in the specification of the Application, such a light-emitting element as disclosed in JP ‘028 has problems of difficulties in obtaining a high output from the light-emitting element and low light-extracting efficiency (see Application at page 3, line 18 through page 4, line 11).

In contrast, a light-emitting element of the claimed invention uses a substrate surface as a main light-extracting surface. Thus, Applicant submits that the claimed invention of amended claim 1 is not taught or suggested by JP ‘028.

Furthermore, JP ‘028 does not teach or suggest a light-emitting device “*wherein said swollen portion supports substantially the position of the center of gravity of said substrate surface*” as recited in claim 5.

Indeed, the Examiner attempts to rely on Figure 5a of JP ‘028 to support his allegations. The Examiner, however, is clearly incorrect.

Serial No. 10/664,081  
Docket No. T36-159070M/RS

8

That is, nowhere in this figure (nor anywhere else for that matter) does JP '028 teach or suggest a light-emitting device wherein a position of a center of gravity of the light-emitting device is supported by the swollen portion. Indeed, nowhere does JP '028 even mention the center of gravity of the light-emitting device, let alone teach or suggest that the center of gravity of the light-emitting device is supported by the swollen portion.

The Examiner merely states that the swollen portion 3e supports substantially the center of gravity of the device 4. However, the Examiner provides no support for this allegation, other than merely referring to Figure 5a of JP '028.

Figure 5a of JP '028 merely depicts a light emitting device 4 positioned on a reflective block of a lead frame 1. Nowhere, however, does Figure 5a depict that the center of gravity of the light-emitting device is supported by the swollen portion.

Applicant points out to the Examiner that a drawing or picture can anticipate claims only if they clearly show the structure which is claimed (see MPEP 2125). That is, "[t]he drawings must be evaluated for what they reasonably disclose and suggest to one of ordinary skill in the art" (see MPEP 2125). Further, MPEP 2125 states that patent drawings do not define the precise proportions of the elements and may not be relied upon as such if the specification is silent on the issue.

Applicant submits that the specification of JP '028 does not teach or suggest that a position of a center of gravity of the light-emitting device is supported by the swollen portion, and that it is clearly unreasonable for the Examiner to read such limitations into Figure 5a of JP '028 without providing support in the specification of JP '028. Thus, claim 5 is not taught or suggested by JP'028.

Therefore, in view of the foregoing, Applicant submits that JP '028 does not teach or suggest each and every feature of the claimed invention defined by independent claim 1, or dependent claim 5.

#### **B. The Kneissl Reference**

The Examiner alleges that Kneissl would have been combined with JP '028 to form the claimed invention of claims 1-9, 11-14 and 16-24. Applicant submits, however, that these references would not have been combined as alleged by the Examiner and that, even if combined, the alleged combination would not teach or suggest each and every element of the claimed invention.

Serial No. 10/664,081  
Docket No. T36-159070M/RS

9

Indeed, these references are directed to different problems and solutions. Specifically, JP '028 is directed to raising the luminous efficiency of a semiconductor device, whereas Kneissl is merely directed to reducing the number of p-type semiconductor layers in a nitride based LED structure. Therefore, these references are completely unrelated, and no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

Moreover, the Examiner's motivation to modify JP '028 ("to emit blue light with efficient radiation") is not a problem in JP '028 that would require a solution. Thus, as pointed out in MPEP 2143.01, the Examiner's motivation is "improper". "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination" (emphasis in MPEP).

Moreover, neither JP '028 nor Kneissl, nor any combination thereof, teaches or suggests a light-emitting device including "a semiconductor light-emitting element using a substrate surface as a main light-extracting surface" (emphasis added) as recited in exemplary claim 1.

The Examiner attempts to rely on Kneissl as teaching an LED for emitting blue light. However, the Examiner does not point out any specific portion of Kneissl to support his allegations.

That is, nowhere does Kneissl teach or suggest a light-emitting device including a semiconductor light-emitting element using a substrate surface as a main light-extracting surface. Indeed, the Examiner does not even allege that Kneissl teaches or suggest these features. The Examiner merely relies upon Kneissl as teaching an LED for emitting blue light.

Furthermore, Kneissl, alone or in combination with JP '028, does not teach or suggest a light-emitting device "*wherein said swollen portion supports substantially the position of the center of gravity of said substrate*" as recited in claim 5.

Thus, Kneissl fails to make up for the deficiencies of JP '028.

Therefore, Applicant submits that these references would not have been combined as alleged by the Examiner and that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

#### IV. FORMAL MATTERS AND CONCLUSION

In response to the Examiner's objection the drawings have been amended. That is,

Serial No. 10/664,081  
Docket No. T36-159070M/RS

10

Figure 1 has been amended to include a prior art legend.

In view of the foregoing, Applicant submits that claims 1-19 and 21-24, all of the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: \_\_\_\_\_

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**FACSIMILE TRANSMISSION**

I hereby certify that I am filing this paper via facsimile, to Group Art Unit 2815, at (703) 872-9306, on June 3, 2005.

Respectfully Submitted,

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U.S. Patent Application Serial No. 10/664,081

Art Unit No. 2815

Annotated Marked-Up Drawing

1/6

FIG. 1

PRIOR ART

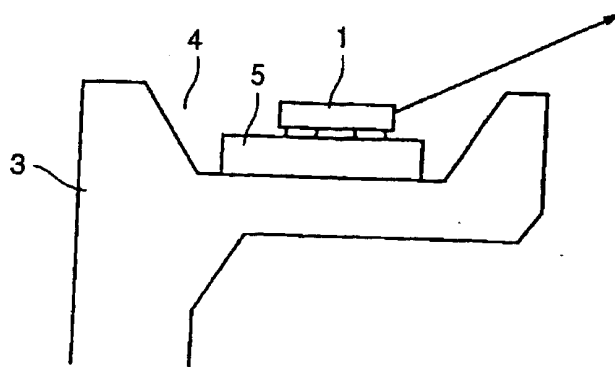


FIG. 2

